Rheumatism

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An Inaugural Essay
For the degree of
Doctor of Medicine
Submitted to the
Examination of the
Provost
The Trustees and
Medical Professors of the
University of Pennsylvania
On the Nineteenth day of April
1810

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In the prosecution of this essay I propose to treat of the different forms of Rheumatism, taught in our School under the names of Rheumatism, Rheumaticula and Rheumatalgia.—

Rheumatism is a disease generally affecting the large joints, particularly those that are most acted on in the different exercises of the body. It also affects the muscles of the extremities and is occasionally found to affect other parts more or less connected with such as are primarily attacked. It occurs at all seasons of the year, but most frequently in Autumn and winter; and is more a disease of cold and variable, than of warm climates.—

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after a Winter that has been uniformly cold, it often prevails in the spring, and violent inflammatory cases are sometimes met with in the summer. It affects persons chiefly in the meridian of life, or at any period between the age of puberty and the fortieth year. Sailors, Soldiers, fishermen and others who are much exposed to violent and irregular exercise, and to great vicissi=tudes of temperature are most subject to its attacks.—

The Causes which concur in the production of Rheumatism, may be divided into the remote, the pre=disposing, the exciting, and the proximate. The most common remote causes of the disease, are violent exercise and irregular labour which dispose to it, by inducing debility in the joints and muscles which are

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-duce debility in other parts of the body that are allow-
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of it, may be regarded as a remote cause of the com-
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The predisposing cause of Rheumatism is
debility, either directly or indirectly induced in those
parts which it is generally observed to attack. ~

The exciting causes of the disease are the same as
those which excite other inflammatory affections; ~~such~~
such as intemperance in eating and drinking, sudden
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application of cold water, wet clothes, lying in damp
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sheets, sitting or lying on moist ground, travelling in the night or being much exposed to the night air: In short cold and moisture applied in any way so as suddenly to check perspiration or to produce an undue determination to the joints, or other debilitated parts. Under this head may also be enumerated repelled eruptions, excessive discharges of any kind, and the sudden stopping of customary or natural evacuations; they all act by exciting morbid, deranged or unnatural actions in the system, which have a necessary tendency to fix themselves upon parts predisposed to disease. Rheumatism is also sometimes the effect of Scurvy, Lues Venera, and protracted intermitting or remitting fevers. ~

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The proximate cause of Rheumatism is that morbid, unnatural or irregular action in the vessels of the part or parts affected exhibiting itself in the various phe-nomena or symptoms of the disease which come next to be considered. — —

The symptoms usually characterising a paroxysm of acute Rheumatism, are heat, redness and tension of the part affected with a sense of throbbing, great sensibility, and the ordinary signs of inflammatory diathesis in other parts of the system; such as a full, tense, frequent and bounding pulse, thirst, heat, restlessness and a sense of extreme anxiety. The disease usually commences with a chill, or with sensations of heat and cold alternating with each other.

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The chill which ushers in an attack of Rheumatism, is often very violent, and continues in some cases for several hours; it is then succeeded by a fever, which abates after sometime, and during its abatement the patient will often be visited by a gentle perspiration. The urine is sometimes high coloured, depositing a copious sediment after a few days; at other times it is perfectly clear without any sediment whatever. Pain more or less severe commonly attends, and is rendered excruciating on the slightest motion, manifesting at certain stages of the disease a great disposition to translate itself from joint to joint especially during the night. Towards morning a gentle or copious perspiration breaks out attended with an abatement or remission of fever and

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and a partial alleviation of pain; and the patient in some instances during the day finds himself tolerably easy while free from motion. But generally towards night the paroxysm returns bringing back all the symptoms with their usual severity, and the patients sufferings are again renewed. This however is not by any means uniformly the case, for the pain in some instances is equally acute in the day, or suffers little or no perceptible remission.

After these symptoms have continued for some time, a swelling of the part principally affected becomes obvious & considerable. The pain after this is not so acute, but is renewed on the slightest impression. The Swelling however though it pretty generally diminishes

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diminishes, does not always carry off the pain or secure the joint against a second attack. The swelling which takes place in inflammatory Rheumatism is probably the consequence of an effusion of lymph or serum from the blood vessels.

Rheumatism differs from Gout in being more centrifu=gal; that is, in being less liable to affect the stomach, the brain and viscera, in being attended with more ar=terial action, and in being chiefly confined, when it attacks the extremities, to the larger joints. They appear nevertheless to be nothing but different forms or modifications of the same disease, varied by their seats, by their causes, and by the various circumstan=ces of predisposition which concur to give rise to them.

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Doctor Sydenham describes a Scorbutic Rheumatism which he says, was not attended with much fever or swelling, and in which the pains were more wandering, and the symptoms not uniform. Females and men of effeminate constitutions are said to be most liable to this form of the disease. But Doctor Rush in a note to the works of Doctor Sydenham, observes that it is a very rare occurrence in the United States.

Rheumatism in its common forms is seldom fatal. The inflammation and swelling accompanying it differs from almost all others, generally terminating in resolution, rarely in suppuration, and never in gangrene. When death occurs it is either in consequence of Suppuration or some other morbid local

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local affection producing hectic fever, or of a translation of the disease to more vital parts. When it occurs in old people it is seldom cured.

In the Cure of acute Rheumatism we are to be governed by two principal indications: the first of which is to reduce the fever and inflammatory diathesis which may be present: the second to alleviate pain and by proper local applications to reduce the inflammation and swelling of the part or parts af=
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To answer the first indication, our first remedy is bloodletting. Blood should be drawn in large quantities, and the bleeding repeated more or less frequently according to the greater or less

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fulness and hardness of the pulse. Large and repeated bleedings during the first days of this disease, are highly necessary, and for the following reasons; first because they tend to shorten the period of the disease. 2ly. They lessen the severity of the pain which attends it. 3ly. They prevent the system from wearing itself away by fruitless efforts and thereby prevent a predisposition to a second attack. 4ly. They prevent those morbid effusions which lay the foundation of earthy and other concretions between the joints, and thereby prevent lameness and deformity. 5ly and lastly. They supersede in a great measure the exhibition of active purges, the operation of which is extremely inconvenient and distressing. — — — —

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The next remedy to be mentioned under this head is purging. The purges most proper in Rheumatism are those that act slowly and gently on the bowels, such as Sulphur, Cream of Tartar, Castor oil, the neutral Salts &c. They give relief in two ways (viz) by removing constipation, and by discharging bile and other acid substances from the intestines, which are often the means of aggravating the symptoms of the disease.

Antimonials are recommended, but do not promise to be of much service, except when given in small and nauseating doses to excite perspiration.

Another remedy of great importance in the treatment of Rheumatism, is sweating. Medicines given to excite sweating is this disease

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should be of the least heating or stimulant kind, such as Nitre, Tartar Emetic, Ipecacuanha, and the like. Dover's powder is an excellent medicine in Rheumatism, and when judiciously administered does great service. If aided by draughts of warm debilitating drinks it excites a copious discharge from the skin at the same time that it lessens the pain and induces sleep. After the lancet has been used liberally Digitalis may be given with advantage. The following formula* has been advised. Take of Tincture of digitalis from 80 to 100 drops of crude nitre one drachm and of pure water eight ounces. M. this to be taken in 24 hours. The patient ~~throughout~~ the whole of his disease should be kept cool and quiet as possible, and avoid all irritating

*Dr Barton

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To fulfil the second indication a variety of remedies have been recommended. I shall only mention a few of them

Topical bloodletting is often found serviceable when the local inflammation is great, and immediate relief desired. With this view leeches may be applied all over the inflamed part. Cupping and scarifications are less eligible, being more painful and more irritating remedies.

After sufficient bleeding has been premised and the pain has become fixed to a particular joint, blisters are highly useful, but afford little or no advantage before. To ease pain Doctor Sydenham

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applied cabbage leaves with success. Opium except with a view to mitigate pain, ought never to be given in the inflammatory stage of Rheumatism, unless it be combined with some medicine calculated to induce sweating or a determination to the skin.

Cold and cool air, as in other inflammatory diseases are proper. The part affected should be kept cool, the dressings should be thin, and the bed clothes light or barely sufficient to render the patient com=fortable. I have seen cold water applied in one instance with great advantage in acute Rheumatism. It reduces inflammation and allays pain, and may be applied either by ablution or jactation. In a word the cure of acute Rheumatism depends upon a

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rigid antiphlogistic plan of treatment. A low diet should be strictly enjoined, and a total abstinence from animal food, and from all spirituous liquors.

To guard the patient against future attacks, he should be directed to avoid all the remote and exciting causes of the disease, lose blood occasionally, and prevent costiveness by the occasional use of gentle aperient medicines. The wearing of flannel next to the skin should be recommended; also moderate and regular exercise, the cold bath; and lastly a change of climate. - - - - - - - - - - - -

I come now to offer a few observations on Rheumaticula or what is more commonly called Chronic Rheumatism.

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In this which for the most part succeeds Acute Rheumatism, the patient can sit up and, with some little pain and difficulty, walk about. The pulse is synochula, or quick, frequent, moderately tense, but small; the disease is not attended with chills, but a constant fever, and the swelling disappears altogether or is scarcely observable. The pains still continue though not with their usual violence, but causing much stiffness and tenderness of the joints, and subject to increase at night. They are likewise increased by motion and the changes of the weather: hence patients often have a premonition of a change about to take place before it actually happens.

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The remedies for this form of Rheumatism are 1st. frequent and small venesections: without these we can make but little impression upon the disease. Blood should be drawn more or less copiously according to the constitution and state of the system, the pulse in every instance being our guide. 2ly Cathartics: these should be gentle as the neutral salts, Sulphur, Magnesia, cream of tartar, &c. 3ly. Blisters: they may be applied above or below the affected part, or immediately over it. Doctor Rush* has lately found that blisters around the joints are much more efficacious in Chronic Rheumatism than on any other place. 4ly. Low diet. 5thly and lastly a Salivation:

* Clinical Reports

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this acts by translating morbid excitement from the joints to the salivary glands. Without the aid of a Salivation we should be much more frequently foiled in the cure of chronic Rheumatism, than we are under a skillful application of this invaluable remedy.

After sufficient depletion, Stimulants and tonics either internal or external, may be resorted to with advantage and safety. The particular tonics, as well as the quality and force of stimulants necessary in this state of the disease, will depend on the constitution of the patient, his former habits and his condition at the time they are to be administered.

This form of Rheumatism may also be avoided by avoiding exposure to cold, by occasionally

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I come finally to our third division of this essay, which is to offer a few remarks on Rheumatalgia

This arises from an imperfectly cured Rheumatism, a neglected or protracted Rheumaticula, and is usually attended with a diminished or worn out excitability.

The causes of Rheumatalgia are the same as those producing acute and chronic Rheumatism. It is generally attended with lameness, but seldom with fever. It continues not only for months and years, but frequently during life. The pains are seldom acute or constant, in it, but occasionally

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return at uncertain and irregular periods. In some instances after continuing a great while, they have been known to leave the patient entirely and never to recur: though they more frequently continue even to extreme old age, rendering the patient miserable to the last moment of his existence. Persons labouring under this tedious and protracted form of Rheuma-tism are sometimes totally deprived of the use of their limbs, probably in consequence of anchylosis.

The Remedies for this form of Rheu-matism naturally divide themselves into two classes, internal and external. I shall briefly mention such of them as have been most distin-guished for their efficacy, and which are most universally

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The internal remedies are Guaiacum, either the simple or the volatile Tincture, The decoction of mezereon and sarsaparilla, Tincture of poke berries, decoction of Seneka, Mustard and pepper, The decoction or the essential oil of sarsafras, oil of amber, Camphor, or opium and Camphor combined.

The Aralia* Spinosa, Prickly ash, or tooth ache Tree: a watery or spirituous solution of this article has of late been highly extolled in this form of Rheumatism; but I am not able to say any thing in its favour from my own observation.

Among the external remedies to be employed in the treatment of the Rheumatalgia the first to be

*See Coxe's Medical Museum Vol. 2 Page 161

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be mentioned is the warm bath: this has the effect of awakening the dormant excitability of the system and thereby preparing it for the successful use of other remedies. When a bath of warm water fails the vapour bath should be tried.

After the system has been roused from its torpid state, the cold bath may succeed the warm, or they may be used alternately: the efficacy of the warm bath will be increased by dissolving in the water a quantity of table salt.

Frictions by the hand or a flesh brush if gentle and long continued, are of great advantage. Stimulating unctious preparations applied by means of friction have often done good.

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A very good one is made of Opium and Carbonate of ammonia each one drachm, Camphor two scruples, olive oil one pound; rub them together, and apply a portion of the ointment twice a day. The volatile liniment, Tincture of Cayenne pepper, the spirits of turpentine, and applications of mustard and horseradish have all in their turns done service in this state of the complaint. Electricity has often succeeded when other remedies have failed. The patient should always be directed if he has not been in the habit of wearing it, to put on flannel, to use exercise, and lastly to change his air. Visiting certain Medicinal springs will often perform cures in cases of the most obstinate kind and of long duration, when all other remedies prove abortive —

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I shall conclude this essay by observing that success in the management of the different states of Rheumatism, as well as in the management of all other diseases, consists in an eminent degree in timing remedies. There is a time to bleed and a time to withhold the lancet; a time to purge and a time to abstain; a time to sweat and a time to give anodynes; a time to stimulate and a time when stimulants would be improper and pernicious. In a word the cure of the disease must depend upon proper remedies in their proper times and places.

In retiring from this university in which I have enjoyed so many important advantages, it is a duty I owe to gratitude as well as to individual

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individual merit, to offer to the Medical Professors my unfeigned thanks. Of the instruction I have derived from their truly valuable lectures, I shall retain an indelible remembrance! That each of you Gentlemen, may long enjoy in health and vigour that life which has been so publicly useful; that the science you teach may continue to flourish under your fostering hands, and that your labours may ultimately be crowned with that honor and happiness you all so eminently deserve, is the fervent and sincere wish of Your friend and devoted

R. Muldrow